

Memory Module Specification



KHX2000C9AD3T1K3/6GX

6GB (2GB 256M x 64-Bit x 3 pcs.) DDR3-2000MHz CL9 240-Pin DIMM Kit

DESCRIPTION:

Kingston's KHX2000C9AD3T1K3/6GX is a kit of three 256M x 64-bit 2GB (2048MB) DDR3-2000MHz CL9 SDRAM (Synchronous DRAM) memory modules, based on sixteen 128M x 8-bit DDR3 FBGA components per module. Each module kit supports Intel® XMP (Extreme Memory Profiles). Total kit capacity is 6GB. Each module kit has been tested to run at DDR3-2000MHz at a low latency timing of 9-11-9 at 1.65V. The SPDs are programmed to JEDEC standard latency DDR3-1333MHz timing of 9-9-9 at 1.5V. Each 240-pin DIMM uses gold contact fingers and requires +1.5V. The JEDEC standard electrical and mechanical specifications are as follows:

FEATURES:

- \checkmark JEDEC standard 1.5V \pm 0.075V Power Supply
- ∇ VDDQ = 1.5V ± 0.075V
- ☑ 667MHz fCK for 1333Mb/sec/pin
- **४** 8 independent internal bank
- Programmable CAS Latency: 5,6,7,8,9,10
- Posted CAS
- Programmable Additive Latency: 0, CL 2, or CL 1 clock
- Programmable CAS Write Latency(CWL) = 7(DDR3-1333)
- ✓ 8-bit pre-fetch
- Burst Length: 8 (Interleave without any limit, sequential with starting address "000" only), 4 with tCCD = 4 which does not allow seamless read or write [either on the fly using A12 or MRS]
- ☑ Bi-directional Differential Data Strobe
- ☑ Internal(self) calibration : Internal self calibration through ZQ pin (RZQ : 240 ohm ± 1%)
- On Die Termination using ODT pin
- Average Refresh Period 7.8us at lower then TCASE 85°C, 3.9us at 85°C < TCASE . 95°C
- Asynchronous Reset
- PCB: Height 2.401" (61.00mm) w/ heatsink, double sided component

PERFORMANCE:

✓ CL(IDD) 9 cycles
✓ Row Cycle Time (tRCmin) 49.5ns (min.)
✓ Refresh to Active/Refresh Command Time (tRFCmin) 110ns

Refresh to Active Refresh Command Time (list chim)

Row Active Time (tRASmin) 36ns (min.)

Power 1.800 W (operating per module)

UL Rating94 V - 0Operating Temperature 0° C to 85° CStorage Temperature -55° C to $+100^{\circ}$ C

MODULE DIMENSIONS:

